#

#

**Harmonized Survey Questions for**

**Monitoring Household Energy Use and
SDG Indicators 7.1.1 & 7.1.2**

**List Format**

Updated November 2019

This document contains a set of **questions essential to monitor SDG Indicator 7.1.2 on primary reliance on clean fuels and technologies, as well as SDG 7.1.1** **on the proportion of the population with access to electricity**. These questions were developed by the World Health Organization (WHO) and the World Bank Group in consultation with a diverse group of stakeholders convened in a set of several expert consultations, and have also been extensively piloted.

**The essential questions for monitoring SDG 7.1.2 and SDG 7.1.1 are marked with an asterisk (\*), totaling 13 questions.** These questions are available in three versions to facilitate integration to existing surveys, including versions that align with common national surveys like the USAID’s Demographic and Health Surveys (DHS) or UNICEF’s Multiple Indicator Cluster Surveys (MICS).

All three versions of survey questions capture the same key data:

1. fuels and technologies used the most time for cooking, heating and lighting (i.e. primary reliance);
2. all other fuels and technologies used by the household for cooking, heating and lighting;
3. electricity access in the household;
4. time use, fuel collection, injuries and health;
5. main source of electricity and appliances used (for solar energy);
6. availability of electricity supply;
7. reliability of electricity supply.

Supporting documentation for the use of the survey questions includes:

* *Household Energy Use Survey Question Guide,* designed for statistical agencies and programs using the questions to understand the importance of each survey question, and how to calculate relevant indicators.
* *Household Energy Use Catalog* includes detailed descriptions of all answer options for the survey questions, including pictorial examples.
* *Household Energy Use Survey Questions: Interviewer Manual*, designed for use in enumerator training, and as a reference tool for survey teams both preceding and during data collection.

If these household energy questions are implemented following the instructions included in the supporting documentation, consistent and comparable monitoring of household energy use patterns across time and populations will be possible.

***Overview of general instructions for administering questions***

* Questions should be administered to a reference person in the household (a person who knows about cooking, heating and lighting practices, such as the head of the household or main cook).
* Questions are provided that guide the interviewer to skip certain sections if cooking, heating or lighting are not performed in the household. Additionally, certain countries may choose to omit the module on heating if it is not applicable.
* Questions can be adapted to both pen & paper or electronic data collection methodologies.
* Questions are written to be administered through one-on-one, in-person interviews, which can be part of national census and household surveys or suitable for use in smaller projects.
* Italicized text indicates instructions to the interviewer. This text should not be read aloud to the respondent.
* Interviewers should not read response options to respondents after administering a question, but should select the response which best fits the information given by the respondent. If the information given is not enough to select a fitting response(s), the interviewer should neutrally ask for more information by asking, for example “Could you please give me a bit more information?”
* Manufactured and traditional solid fuel cookstove definitions (more details and photos will be provided in the supporting documentation mentioned above):
	+ *Manufactured solid fuel cookstoves*: The category for manufactured cookstoves includes any cookstove that is produced and sold or distributed to the end user (including “traditional” cookstoves that are manufactured). For some manufactured cookstoves, specialized technicians come to the household to install/build the cookstove. Manufactured cookstoves are often constructed from prefabricated materials or materials usually not readily available in the immediate community. Manufactured cookstoves are often designed with improvements or advanced design features such as an improved and enclosed combustion chamber, high quality materials, and/or high quality production processes -- unlike traditional solid fuel cookstoves.
	+ *Traditional solid fuel cookstoves (non-manufactured):* Traditional cookstoves are usually constructed at the home. Traditional cookstoves are made with local materials, such as mud, ceramics or clay. These cookstoves do not generally contain advanced design features but may include limited improvements over a three-stone cookstove or open fire (e.g., a pot rest, simple enclosed combustion spaces).

***Direction for Interviewer****: Please inform the respondent that you will now ask questions about cooking, fuel collection, heating, lighting, and electricity use.*

|  |
| --- |
| **HOUSEHOLD COOKING**  |

1. Is any food or drink consumed by household members cooked or prepared at the household dwelling using a cookstove, fire or other cooking device?

Yes 1

No 2 🡪***SKIP TO HEATING MODULE***

1. How many stoves (including open fires) are used for these activities?

Number of cookstoves…|\_\_|\_\_|

1. **\***What does this household use for cooking **most of the time,** including cooking food, making tea/coffee, boiling drinking water? Please tell me the cookstove or device that is used for the most time. (*Circle one option that best matches what respondent reports).*

Solar cooker (thermal energy, not solar panels) 01🡪HC7

Electric stove 02🡪HC6

Piped natural gas stove 03🡪HC6

Biogas stove 04🡪HC6

 Liquefied petroleum gas (LPG)/ cooking gas stove 05🡪HC6

Manufactured solid fuel stove 06

Traditional solid fuel stove (non-manufactured) 07

Liquid fuel stove 08🡪HC5

Moveable firepan 09🡪HC5

Three stone stove/open fire 10🡪HC5

Other, specify96

1. **\***What is the brand of the cookstove or device?

 *(Pre-fill with name or brand of manufactured solid fuel stoves available in country- may add additional lines.)*

*NAME/BRAND 1 01*

*NAME/BRAND 2 02*

*NAME/BRAND 3 03*

1. Other, specify 96**\*** What type of fuel or energy source does this household use **most of the time** in this cookstove or device for cooking food, making tea/coffee and boiling drinking water?

Alcohol/ethanol 01

Gasoline/diesel (not in generator) 02

Kerosene/paraffin 03

Coal/lignite unprocessed 04

Coal/lignite briquettes/pellets 05

Charcoal unprocessed 06

Charcoal briquettes/pellets 07

Wood 08

Agricultural or crop residue/grass/ straw/

shrubs/ corn cobs 09

Animal waste/dung 10

Processed biomass pellets/briquettes 11

Woodchips 12

Garbage/plastic 13

Sawdust 14

Other 96

|  |
| --- |
| **HOUSEHOLD COOKING (continued)** |

1. How much did this household pay for this fuel or energy source **last month** for cooking (the last 30 days)?

*(in local currency)*

 \_\_\_\_\_\_\_\_ (local currency)

Pays nothing 01

Does not know 99

1. In the **past 12 months**, how often was this fuel or energy source **unavailable** in the quantity you desired?

Often (more than once a month) 01

Sometimes (4-12 times a year) 02

Rarely (less than 4 times a year) 03

Never (always available) 04

Don’t know / Unsure 99

1. What **other** fuels and energy sources does this household use in this cookstove or device for cooking food, making tea/coffee, boiling drinking water and/or starting the fire?

*(Circle all that respondent mentions.)*

No others 01

Alcohol/ethanol 02

Gasoline/diesel (not in generator) 03

Kerosene/paraffin 04

Coal/lignite unprocessed 05

Coal/lignite briquettes/pellets 06

Charcoal unprocessed 07

Charcoal briquettes/pellets 08

Wood 09

Agricultural or crop residue/grass/straw/
shrubs/corn cobs 10

Animal dung/waste 11

Processed biomass pellets briquettes 12

Woodchips 13

Garbage/plastic 14

Sawdust 15

Other 96

1. **Yesterday**, how much time was this cookstove used for cooking food, making tea/coffee, and boiling drinking water?

Number of hours \_\_ \_\_

Number of minutes \_\_ \_\_

Don’t Know / unsure 99

1. How often did you use the cookstove or cooking device **over the last week (last 7 days)** for these activities?

Several times each day 01

About once per day 02

A few times this week 03

About once this week 04

Less than once this week 05

Does not know 99

|  |
| --- |
| **HOUSEHOLD COOKING (continued)** |

1. Is the cooking usually done in the house, in a separate building, or outdoors?

*(If in main house, probe to determine if cooking is done in a separate room.*

*If outdoors, probe to determine if cooking is done on veranda, covered porch, or open air.)*

In main house: no separate room 01

In main house: separate room 02

Outside of main house: in a separate room 03

Outside of main house in open air 04🡪HC13

On veranda or covered porch 05🡪HC13

Other 96

1. Does the cookstove have a chimney or hood?

Yes 01

No 02

Don’t know 99

1. In the past 12 months, did any harm or injury happen from using this cookstove, device or fuel?

*(Circle all that respondent mentions.)*

None 01

Person burned 02

Fire in house 03

Poisoning 04

Death 05

Other 96

1. What else does this household use for cooking (including cooking food, making tea/coffee, and boiling drinking water)? Please tell me all other cookstoves or devices used.
*(Circle* ***all******stoves*** *that respondent reports)*

No other cookstoves used 00🡪 **SKIP TO HOUSEHOLD ENERGY & GENDER MODULE**

Solar cooker (thermal energy, not solar panels) 01🡪 **SKIP TO HOUSEHOLD ENERGY & GENDER MODULE**

Electric stove 02🡪 **SKIP TO HOUSEHOLD ENERGY & GENDER MODULE**

Piped natural gas stove 03🡪 **SKIP TO HOUSEHOLD ENERGY & GENDER MODULE**

Biogas stove 04🡪 **SKIP TO HOUSEHOLD ENERGY & GENDER MODULE**

Liquefied petroleum gas (LPG)/ cooking gas stove 05🡪 **SKIP TO HOUSEHOLD ENERGY & GENDER MODULE**

Manufactured solid fuel stove 06

Traditional solid fuel stove (non-manufactured) 07

Liquid fuel stove 08🡪HC16

Moveable firepan 09🡪HC16

Three stone stove/open fire 10🡪HC16

Other, specify 96

1. What is(are) the name(s) or brand(s) of these solid fuel device(s) or stove(s)?

*(Mention all of the brands/names for devices in HC14)*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
| **HOUSEHOLD COOKING (continued)** |

1. What type(s) of fuel(s) or energy source(s) does this household use for cooking in the other cookstoves or devices just reported?

*(Circle* ***all******fuels*** *that respondent reports using* ***in any of the stoves or devices*** *in HC14)*

Alcohol/ethanol 01

Gasoline/diesel (not in generator) 02

Kerosene/paraffin 03

Coal/lignite unprocessed 04

Coal/lignite briquettes/pellets 05

Charcoal unprocessed 06

Charcoal briquettes/pellets 07

Wood 08

Agricultural or crop residue/grass/

straw/ shrubs/ corn cobs 09

Animal waste/dung 10

Processed biomass pellets/briquettes 11

Woodchips 12

Garbage/plastic 13

Sawdust 14

Other 96

|  |
| --- |
| **HOUSEHOLD ENERGY & GENDER**  |

1. ***Enumerator/CAPI check: Is the cookstove used most of the time (HC3) electric, solar or piped natural gas?***

Yes 01🡪HG2

No 02

1. Who usually goes to collect the main fuel for the cookstove your household uses **most of the time**?

*Record the name of the person who spends the most time collecting the main fuel* ***HC5 for cookstove (a)*** *and* *copy the line number of this person from the LIST OF HOUSEHOLD MEMBERS Module. If multiple people spend the same time collecting, add additional names and line numbers.*

MEMBERS DO NOT COLLECT 00🡪HG2

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Line Number \_\_ \_\_

*(If multiple collect for the same amount of time)*

SECOND PERSON Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SECOND PERSON Line Number \_\_ \_\_

1. On a single trip, how long does it take for this person to go to collect the fuel, get the fuel, and come back?

Number of hours \_\_ \_\_

Number of minutes \_\_ \_\_

Does not know / unsure 99

1. **In the past month (the last 30 days)**, how many times has this person collected this fuel for household cooking?

Number of times in past month \_\_ \_\_

Does not know / unsure 99

|  |
| --- |
| **HOUSEHOLD ENERGY & GENDER (continued)** |

1. **In the past 12 months,** did this person experience an injury while collecting or transporting fuel?

*(Prompt. Circle all.)*

No injury 00

Back pain 01

Back, neck or shoulder injury 02

Cuts or scrapes 03

Snake or animal bite 04

Other 05

Does not know / unsure 99

1. **Yesterday,** how much time in total was spent preparing the [COOKSTOVE] and fuel for cooking, including setting up the fuel and lighting/turning on the cookstove but not including gathering fuel or cooking time? *(Time spent by anyone, not use person in HG2.)*

Number of hours \_\_ \_\_

Number of minutes \_\_ \_\_

Does not know / unsure 99

1. Who in the household does most of the cooking, including cooking food, making tea/coffee and boiling drinking water?

*Record the name of the person and copy the line number of this person from the List of Household Members Module.*

MAIN COOK IS NOT HOUSEHOLD MEMBER 00

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Line Number \_\_ \_\_

1. **Yesterday**, how much time did this person spent cooking, including cooking food, tea/coffee, and boiling drinking water for household consumption?

Number of hours \_\_ \_\_

Number of minutes \_\_ \_\_

Does not know / unsure 99

|  |
| --- |
| **HOUSEHOLD HEATING** |

1. Does this household use any heating device or fire to keep the dwelling/living quarters warm at any time during the year?

Yes ……1

No …...2 🡪 **SKIP TO LIGHTING MODULE**

1. In the last 12 months, **during** **how many months** did you use a heating device or fire to keep the dwelling/living quarters warm?

Number of months |\_\_|\_\_|

1. **\***What does this household use to heat the home when needed? For example, do you use a space heater(s), or use your cookstove in the winter for warmth? Please tell me the heater, cookstove or heat system used for the **most time.**

*(Circle one option that best matches what respondent reports.)*

Central heating 01🡪HH5

Manufactured space heater 02

Traditional space heater 03

Manufactured cookstove 04

Traditional cookstove (non-manufactured) 05

Moveable heating pan 06🡪HH5

Open fire/Three-stone stove 07🡪HH5

Heat Pump 08🡪HH5

Other, specify 96

|  |
| --- |
| **HOUSEHOLD HEATING (continued)** |

1. What is the brand of the heater, cookstove or device?

*(Pre-fill with name or brand of devices available in country - may add additional lines.)*

NAME/BRAND 1 01

NAME/BRAND 2 02

NAME/BRAND 3 03

Other, specify 96

1. **\*** What type of fuel or energy source does this household use **most of the time for heating** in this heater, cookstove or device?

Electricity (including solar panels) 01🡪HH8

Piped Natural Gas 02🡪HH8

LPG/cooking gas 03🡪HH8

Biogas 04🡪HH8

Alcohol/ethanol 05🡪HH7

Gasoline/diesel (not in generator) 06🡪HH7

Kerosene/paraffin 07🡪HH7

Coal/lignite unprocessed 08

Coal/lignite briquettes/pellets 09

Charcoal unprocessed 10

Charcoal briquettes/pellets 11

Wood 12

Agricultural or crop residue/grass/straw/
shrubs/corn cobs 13

Animal waste/dung 14

Processed biomass pellets/briquettes 15

Woodchips 16

Garbage/plastic 17

Sawdust 18

Other 96

1. Does it have a chimney or hood?

Yes 01

No 02

Don’t know 99

1. Which other fuels or energy sources are used **for heating** in this space heater, cookstove, device or fuel?

*(Circle all that respondent mentions.)*

None 01

Alcohol/ethanol 02

Gasoline/diesel (not in generator) 03

Kerosene/paraffin 04

Coal/lignite unprocessed 05

Coal/lignite briquettes/pellets 06

Charcoal unprocessed 07

Charcoal briquettes/pellets 08

Wood 09

Agricultural or crop residue/grass/

straw/shrubs/corn cobs 10

Animal waste/dung 11

Processed biomass pellets/ briquettes 12

Woodchips 13

Garbage/plastic 14

Sawdust 15

Other 96

|  |
| --- |
| **HOUSEHOLD HEATING (continued)** |

1. In the past 12 months, did any harm or injury happen from using this space heater, cookstove or device?

*(Circle all that respondent mentions.)*

None 01

Person burned 02

Fire in house 03

Poisoning 04

Death 05

Other 96

1. What other devices or heaters does this household use to heat the home when needed, if any? Please tell me all other heaters, cookstoves or heat systems used**.**

*(Circle all that respondent mentions.)*

No other space heating used 00🡪**SKIP TO LIGHTING MODULE**

Central heating 01🡪HH11

Manufactured space heater 02

Traditional space heater 03

Manufactured cookstove 04

Traditional cookstove (non-manufactured) 05

Moveable heating pan 06🡪HH11

Open fire/Three-stone stove 07🡪HH11

Heat pump 08🡪HH11

Other, specify 96

1. What is(are) the brand(s) of these heater(s), cookstove(s) or device(s)?

*(Circle all that the respondent mentions.)*

*(Pre-fill with name or brand of manufactured solid fuel devices available in country - may add additional lines.)*

NAME/BRAND 1 01

NAME/BRAND 2 02

NAME/BRAND 3 03

Other, specify 96

1. What types of fuel or energy source does this household use in these heater(s), cookstove(s) or device(s)?

*(Circle* ***all******fuels*** *that respondent reports using* ***in any of the heaters, stoves or devices*** *listed in HH9.)*

Electricity (including solar panels) 01

Piped Natural Gas 02

LPG/cooking gas 03

Biogas 04

Alcohol/ethanol 05

Gasoline/diesel (not in generator) 06

Kerosene/paraffin 07

Coal/lignite unprocessed 08

Coal/lignite briquettes/pellets 09

Charcoal unprocessed 10

Charcoal briquettes/pellets 11

Wood 12

Agricultural or crop residue/grass/straw/
shrubs/corn cobs 13

Animal waste/dung 14

Processed biomass pellets/briquettes 15

Woodchips 16

Garbage/plastic 17

Sawdust 18

Other 96

|  |
| --- |
| **HOUSEHOLD LIGHTING** |

1. Does this household use anything for lighting?

Yes 1

No 2 🡪**SKIP TO ELECTRICITY MODULE**

1. **\***What does this household use **most of the time** as energy for lighting, or as a light source? Please tell me the light source used for the most time each day. (*Select one type for each light source.)*

Electricity (including solar panels) 01

Solar-powered lantern or flashlight 02

Rechargeable flashlight, mobile, torch or lantern 03

Battery powered flashlight, torch or lantern 04

Biogas lamp...................... 05

LPG lamp 06

Gasoline lamp................... 07

Kerosene or paraffin lamp 08

Oil lamp 09

Candle 10

Open fire 11

Other 96

1. In the **past 12 months**, did any harm or injury happen from using this lighting source?

*(Circle all that respondent mentions.)*

None 01

Person burned 02

Fire in house 03

Poisoning 04

Death 05

Other 96

|  |
| --- |
| **HOUSEHOLD LIGHTING (continued)** |

1. What else does this household use as energy for lighting, or as a light source?

*(Circle all that respondent mentions.)*

No other light source used 00

Electricity (including solar panels) 01

Solar-powered lantern or flashlight 02

Rechargeable flashlight, mobile, torch or lantern 03

Battery powered flashlight, torch or lantern 04

Biogas lamp...................... 05

LPG lamp 06

Gasoline lamp................... 07

Kerosene / paraffin lamp 08

Oil lamp 09

Candle 10

Open fire 11

Other 96

|  |
| --- |
| **HOUSEHOLD** **ELECTRICITY** |

1. **\***What source of electricity is used **most** of the time in this household?

*(Please circle one.)*

No electricity in household 00 🡪 **SKIP TO NEXT MODULE**

 **(*Please customize options for each country*.)**

National grid connection from (COMPANY) 01 🡪HE4

Local mini grid 02 🡪HE4

Solar home system 03

Solar lantern 04

 Electric generator 05

Rechargeable battery 06

Dry cell battery / torch 07 🡪HE4

Other, specify 96 🡪HE4

1. **\***What appliances are powered using this household’s solar device/system?

*(Please circle all that apply)*

Mobile phone charger 01

Radio 02

Television 03

Fan 04

Refrigerator 05

Electric iron 06

Cooking device 07

Other, specify 96

1. How many lightbulbs can be powered using this household’s solar device/system?

Zero 01

One 02

Two or more 03

 **AFTER THIS QUESTION, SKIP TO HE5**

1. Who does this household currently pay for [NAME MAIN electricity system]?

  ***(Please customize options for each country.)***

No one 00

Energy company/National utility 01

Pre-paid meter card seller 02

Community/village/municipality 03

Relative 04

Neighbor 05

Landlord 06

Local store 07

Utility office 08

Bank 09

Post office 10

Other……………………………..... 96

|  |
| --- |
| **HOUSEHOLD** **ELECTRICITY (continued)** |

1. Are there any other sources of electricity used in this household?

 **(*Please circle all that apply.)***

No other sources 00

National grid connection 01

Local mini grid 02

Solar home system 03

Solar lantern ………. 04

Electric generator 05

Rechargeable battery 06

Dry cell battery / torch 07

Other 96

1. **\***In the last 7 days, how many hours of electricity were available **each day** on average from [NAME MAIN electricity system]?

*(Maximum 24 hours)*

Number of hours \_\_ \_\_

Number of minutes \_\_ \_\_

Does not know / unsure 99

1. **\***In the last 7 days, how many hours of electricity were available **each evening** on average**, from 6:00 pm to 10:00 pm from** [NAME MAIN electricity system]?

*(Maximum 4 hours.)*

Number of hours \_\_ \_\_

Number of minutes \_\_ \_\_

Does not know / unsure 99

1. **\***In the last 7 days, how **many times** were there unscheduled outages or blackouts from [NAME MAIN electricity system]?

Number of outages or blackouts \_\_ \_\_

Does not know / unsure 99

1. **\***What is the **total duration** of all the unscheduled outages or blackouts in the last 7 days?

Number of hours \_\_ \_\_

Number of minutes \_\_ \_\_

Does not know / unsure 99

1. ***Enumerator/CAPI check: Is the household’s main source of electricity a National Grid or Local Mini Grid?***

***If HE1 is 1 or 2, mark “Yes”***

Yes 1

No 2 🡪**SKIP TO NEXT MODULE**

1. In the last 12 months, did any of this household’s appliances get damaged because the voltage was going up and down in the [NAME MAIN electricity system from ***HE1***]?

Yes 1

No 2

1. In the last 12 months, did anyone using [NAME MAIN electricity system from ***HE1***] die or have permanent limb (bodily injury) damage?

Yes 1

No 2